IN THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Currently Amended) A method for connecting one of several customer premises equipment, or CPE, via an ATM network to one of several service providers, or SPs, said method comprising:

connecting each <u>customer premises equipment</u> CPE to an ATM network via a corresponding network termination point, or NT; and

forming an access server function, or ASF, having a permanent virtual connection to each NT and a connection to each <u>service provider</u> SP;

characterized in that

<u>establishing</u> a tunnelling protocol is established on said permanent virtual connection between each NT and said <u>access server function</u> ASF, said tunnelling protocol being able to support an integrated signalling protocol;

the <u>customer premises equipment</u> CPE or its user selects <u>selecting</u> an appropriate <u>service provider</u> SP by using said integrated signalling protocol;

<u>performing</u> routing from said <u>customer premises equipment</u> CPE to said selected <u>service provider</u> SP is performed by said <u>access server function</u> ASF; and

said <u>access server function</u> ASF connects <u>connecting</u> the <u>customer premises equipment</u> CPE to the selected <u>service provider</u> SP using said integrated signalling protocol.

2.   (Currently Amended) <u>The</u> A method according to claim 1, characterized by <u>further comprising</u> providing one permanent virtual connection from the <u>access server function</u> ASF to each <u>service provider</u> SP.

3.   (Currently Amended) <u>The</u> A method according to claim 1, characterized by <u>further comprising</u> providing a pool of permanent virtual connections from the <u>access server function</u> ASF to each <u>service provider</u> SP; and allocating one connection to each <u>network termination point</u> NT from said pool.

4.   (Currently Amended) The ~~A~~ method according to claim 1, ~~characterized by~~ further comprising establishing one switched virtual connection ~~(SVC)~~ from the access server function ~~ASF~~ to each service provider ~~SP~~, on the basis of signalling which the access server function ~~ASF~~ receives from said customer premises equipment ~~CPE~~ via said tunnelling protocol

5.   (Currently Amended) The ~~A~~ method according to claim 1, ~~characterized by~~ further comprising establishing said tunnelling protocol only in response to detecting appropriate activity in said customer premises equipment ~~CPE~~.

6.   (Currently Amended) The ~~A~~ method according to claim 1, ~~characterized by~~ further comprising establishing said tunnelling protocol permanently and initiating said integrated signalling and authenticating the user of said customer premises equipment ~~CPE~~ only in response to detecting appropriate activity in said customer premises equipment ~~CPE~~.

7.   (Currently Amended) The ~~A~~ method according to claim 1, ~~characterized by~~ further comprising authenticating the user of said customer premises equipment ~~CPE~~ both by said access server function ~~ASF~~ and by the selected service provider ~~SP~~.

8.   (Currently Amended) A network element ~~(ASF)~~ providing an access server function for connecting each of several customer premises equipment, ~~or CPE,~~ via an ATM network to one of several service providers, ~~or SPs,~~ said network element comprising:

interface means to several network termination points, or network termination points ~~NTs~~ for connecting each customer premises equipment ~~CPE~~ to the ATM network via a corresponding network termination point ~~NT~~; and

interface means to each service provider ~~SP~~ for providing a permanent virtual connection or a switched virtual connection thereto;

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~~characterized in that the network element is arranged to:~~

~~use~~ means for using a tunnelling protocol on said permanent virtual connection between itself and each network termination point ~~NT~~, said tunnelling protocol being able to support an integrated signalling protocol;

~~select~~ means for selecting an appropriate service provider ~~SP~~ in response to signalling from each customer premises equipment ~~CPE~~ or its user, said selecting being carried out using said integrated signalling protocol;

~~support~~ means for supporting routing from each customer premises equipment ~~CPE~~ to said selected service provider ~~SP~~; and

~~connect~~ connecting each customer premises equipment ~~CPE~~ to the selected service provider ~~SP~~ using said integrated signalling protocol.

9.   (Currently Amended) The ~~A~~ network element ~~(ASF)~~ according to claim 8, ~~characterized in that it is arranged to provide~~ further comprising means for providing one permanent virtual connection from itself to ~~substantially each SP~~ each of several service providers.

10.   (Currently Amended) The ~~A~~ network element ~~(ASF)~~ according to claim 8, ~~characterized in that it is arranged to provide~~ further comprising means for providing a pool of permanent virtual connections from itself to each service provider ~~SP~~ and to allocate one connection to each active network termination point ~~NT~~ from said pool.

11.   (Currently Amended) A network element access server function ~~ASF~~ according to claim 8, ~~characterized in that it is arranged to provide~~ further comprising means for providing a switched virtual connection from itself to at least one service provider ~~SP~~.

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12.   (Currently Amended) The ~~A~~ network element ~~(ASF)~~ according to claim 8, ~~characterized in that it is arranged to provide~~ further comprising means for providing a separate tunnel from itself to ~~substantially each CPE~~ each of several customer premises equipments.

13.   (Currently Amended) The ~~A~~ network element ~~(ASF)~~ according to claim 8, ~~characterized in that it is arranged to cooperate~~ further comprising means for cooperating with an network termination point ~~NT~~ between itself and each customer premises equipment ~~CPE~~,

said network termination point ~~NT~~ being arranged to provide a separate tunnel from itself to ~~substantially each CPE~~ each of several customer premises equipments and to combine the separate ~~tunnel~~ tunnels into fewer tunnels~~, preferably a single tunnel,~~ from itself to the network element~~ASF~~.

14.   (New) The network element according to claim 13, wherein the number of said fewer tunnels is one.